

WHAT IS CLAIMED IS:

- ✓ 1. A method for expressing a soluble heterologous protein in bacteria comprising:
  - transforming a bacterium with a vector wherein the vector contains a nucleic acid sequence capable of expressing thioredoxin and a nucleic acid sequence capable of expressing a heterologous protein; and
  - culturing the bacterium under conditions wherein the thioredoxin and the heterologous protein are expressed as separate non-fused proteins and the heterologous protein is expressed in a soluble, biologically active form.
2. The method of claim 1 wherein the vector is a plasmid.
3. The method of claim 1 wherein the nucleic acid sequence which expresses thioredoxin and the nucleic acid sequence which expresses the heterologous protein are operationally linked to a common promoter.
4. The method of claim 3 wherein the promoter is a *lac* promoter.
- ✓ 5. A vector which contains a nucleic acid sequence which encodes a thioredoxin protein and a nucleic acid sequence which encodes a heterologous protein wherein the vector is capable of expressing the thioredoxin protein and the heterologous protein as separate, non-fused proteins, and wherein the heterologous protein is expressed in a soluble, biologically active form.
6. The vector of claim 5 wherein the vector is a plasmid.
7. The vector of claim 5 wherein the nucleic acid sequence which encodes the thioredoxin protein and the nucleic acid sequence which encodes the heterologous protein are operationally linked to a common promoter.
8. The vector of claim 7 wherein the promoter is a *lac* promoter.

9. A bacterium transformed with an expression vector containing a nucleic acid encoding a thioredoxin protein and a nucleic acid encoding a heterologous protein wherein the thioredoxin protein and the heterologous protein are expressed as separate proteins and wherein the heterologous protein is expressed in a soluble, biologically active form.
10. The bacterium of claim 9 wherein the bacterium is *Escherichia coli*.
11. The bacterium of claim 9 wherein the vector is a plasmid.
12. The bacterium of claim 9 wherein the nucleic acid which encodes the thioredoxin and the nucleic acid which encodes the heterologous protein are operationally linked to a common promoter.
13. The bacterium of claim 12 wherein the promoter is a *lac* promoter.